

Whatman Cat. No.: WB120411, WB120412

DESCRIPTION:

Indicating FTA Elute Cards are designed for room temperature collection, shipment, archiving, and purification of nucleic acids from biological samples for PCR analysis. Indicating FTA Elute Cards are impregnated with a patented chemical formula that lyses cells and denatures proteins upon contact. Nucleic acids are protected from microbial and fungal attack. Indicating FTA Elute Cards contain an indicating dye that turns from purple to white when a colorless biological sample is applied to indicate the location of the sample. To use Indicating FTA Elute Cards, simply apply biological sample, air dry at room temperature, then remove a small disc (3mm disk). The disc is then washed and the DNA eluted in water at an elevated temperature. The eluted DNA is then used as a source of template in PCR-based analysis.

PRECAUTIONS:

HANDLING: Always wear gloves to avoid contamination of Indicating FTA Elute Cards. Follow universal precautions when handling biological specimens.

STORAGE: Do not open the packages before use. Store the unused cards in original packaging at room temperature in a dry, clean environment. After applying samples, allow the Indicating FTA Elute Cards to dry, then store in a Multi-barrier pouch at room temperature in a dry environment. Dried sample cards can be stored for long period of times in a Multi-barrier pouch with a desiccant packet.

INSTRUCTIONS:

Application of Biological Samples:

A. Buccal Samples

1. Label the Indicating FTA Elute Card with the appropriate sample identification. Use one card for each biological sample.
2. For buccal cell samples, use a foam tipped applicator (Whatman Cat. No. WB100039) to swab the inside of the mouth. Remove the swab from its protective sleeve and grasp by the handle making sure not to touch the foam swab. Absorb saliva from the area between the cheek and gum and from under the tongue. Swab the inside of the cheek for 30 seconds with one side of the swab then turning the swab over, rub on the other cheek for 30 seconds. Place the swab onto the Indicating FTA Elute Card and using 3 side to side motions, 90° each way, press one side of the swab onto the Card. Turn the swab over and press the other side onto the same spot on the Indicating FTA Elute Card. The sample area will turn white indicating sample transfer. Do not place the swab in the mouth after contacting Indicating FTA Elute.
3. Allow the sample to dry completely for at least 3 hours at room temperature prior to punching. To reduce drying time, spotted FTA Elute cards can be placed at 80° C for 15-20 minutes.
4. The sample is now ready for downstream processing or room temperature

B. Cell Culture, bacterial culture or other colorless biological samples

1. Label the Indicating FTA Elute Card with the appropriate sample identification. Use one card for each biological sample.
2. For colorless liquid samples pipette 40µl per circle onto the Card in a concentric circular motion within the printed circle area. Avoid “puddling” of the liquid sample, as it will overload the chemicals on the card. Also, do not rub or smear the sample onto the card.
3. Allow the sample to dry completely for at least 3 hours at room temperature prior to punching. To reduce drying time, spotted FTA Elute cards can be placed at 80° C for 15-20 minutes.
4. The sample is now ready for downstream processing or room temperature storage.

Storage of samples on Indicating FTA Elute Cards:

Biological samples applied to Indicating FTA Elute Cards should be archived at room temperature in a Multi-Barrier Pouch (Whatman Cat. Nos: WB100036) with a desiccant packet (WB100003) or stored in a humidity-controlled, cool, dry environment.

Elution of DNA from Indicating FTA Elute:

1. Remove one to three 3mm (1/8”) sample disc from the center of the sample using the 3mm Harris Uni-Core device (Whatman Cat. No. WB100039) and transfer into a 1.5 ml microcentrifuge tube
2. Add 500 µl of sterile H₂O to the tube and immediately pulse vortex 3 times, for a total of 5 seconds.
3. Using sterile forceps or a pipette tip, remove the disc from the wash, gently squeezing against the side of the tube to remove excess liquid and immediately transfer disc to a 0.5 ml microcentrifuge or PCR tube containing 30 - 100 µl of sterile H₂O (see Table 1 for the amount of elution volume per number of discs). Ensure the discs are completely immersed in the H₂O by briefly centrifuging the tube for 10 seconds
4. Transfer the tube to a heating block at 95°C for 30 min. Halfway through the incubation, pulse vortex 15 times.
5. At the end of the incubation period remove the sample from the block and pulse vortex, or gently tap, the sample approximately 60 times
6. Briefly centrifuge for 30 seconds, to separate the matrix from the eluate. The eluate now contains the purified DNA
7. Using a sterile pipette tip, gently remove the Indicating FTA Elute matrix disc and discard.

8. Store the eluted DNA at -20°C until required
Note: To prevent shearing of DNA caused by repeated freeze-thaw cycles, store DNA in smaller aliquots

PCR Amplification:

The eluted DNA is now ready for PCR analysis or quantitation using fluorescence methods. Assuming a 25µl reaction, use 2.5 µl of the eluted DNA.

Table 1. Indicating FTA Elute Elution Volume per Disc

Number of Discs (3mm)	Elution Volume (µl)
1	30
2	60
3	100

“Paper-in Procedure”

There is the option of using Indicating FTA Elute matrix containing the bound DNA directly in the PCR amplification.

1. Remove a 1.2mm sample disc from the center of the sample area using a 1.2mm Harris Uni-Core device (Whatman Cat. No. WB100028) and transfer to a 1.5 ml microcentrifuge tube.
2. Add 500 µl sterile H₂O to the tube and immediately pulse vortex 3 times for a total of 5 seconds.
3. Using sterile forceps or a pipette tip, remove the disc from the wash, gently squeezing against the side of the tube to remove excess liquid and immediately transfer to a PCR tube containing the PCR master mix.
4. Amplify DNA bound to the disc using normal procedures.

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